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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,004	07/17/2003	Alex Ka Tim Poon	PA0585-US / 11269.60	4132

7590 10/10/2006

The Law Office of Steven G. Roeder
5560 Chelsea Avenue
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EXAMINER .

RUTLEDGE, DELLA J

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,004

Applicant(s)

POON ET AL.

Examiner

D. Rutledge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/26/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-19, 21-35, 37-47, 50-53 and 56-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17, 18, 33-42, 50-53 and 62-69 is/are rejected.
- 7) ☒ Claim(s) 1-6, 8-19, 21-32, 43-47 and 56-61 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/7/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. A Request for Continued Examination was received on 26 June 2006.

Information Disclosure Statement

2. A second copy of the second page of the IDS received on 13 July 2003 is being sent to the applicant because a document was not initialed.

Claim Objections

3. Claim 3 is objected to because a "first reflector" is claimed, but a second reflector is not featured in any of the claims 1. – 18.
4. Claims 19 – 32 are objected to because a first path, a first beam and a first redirector are claimed, but a second path, a second beam or a second redirector are not featured in any of the claims.
5. Claim 33 is objected to because a first system and a first beam are claimed, but a second system and a second beam are not claimed.
6. Claim 37 is object to it claims a first redirector, but a second redirector has not been claimed.
7. Claim 39 is objected to it claims a first reflector, but a second reflector has not been claimed.
8. Claims 43 – 47 are objected to because a first path is claimed, but not a second path.
9. claims 56 – 61 are objected to because a first path is claimed, but not a second path.

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10. Claims 62 – 69 are objected to because there is a lack of antecedent basis for “the device” in claims 62 and 66. Claims 62 and 66 claim a first system and a first beam, but a second system and a second beam are not claimed in any of the respective set of claims. Claims 65 and 69 claim a first reflector, but a second reflector is not claimed.

11. Claim 53 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 50 already states that the shield is positioned near at least a portion of the stage mover assembly, therefore, claim 53 is not a further limitation.

Claim Rejections - 35 USC § 102

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 17, 18, 3 – 42, 50 – 52, 62 – 69 are rejected under 35 U.S.C. 102(b) as being anticipated by Sogard et al. (US Pat. No. 5,552,888).

In regard to claims 33, 50, 62, 66: Sogard et al. have a lithographic exposure apparatus having the basic components of a stage 105, a device and stage mover 525, a measurement system and method of measurement. In Fig. 5, the sheath 500 shields the interferometer beam path 185 near the stage follower motor 525, thus inhibiting environmental conditions.

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In regard to claims 34, 51, 63, 67: Figs. 3 and 4 disclose sheaths 300 and 400 respectively, that are fastened to the mirror 170 which is in turn integral with the stage.

In regard to claims 35, 52, 64, 68: The shields 330, 400, 500, etc., comprise a hollow tubular means and the beam passes through the structure.

In regard to claims 37 – 40, 65, 69: See the arrangements in Figs. 7 and 11.

In regard to claims 17, 18, 31, 32, 41, 42: The exposure apparatus of Sogard et al. will produce the device and wafer claimed. If the product is known, it is accepted practice that the Office does not have to find the method or apparatus used.

Allowable Subject Matter

14. Claims 1 – 32, 43 - 47 and 56 – 62 are objected to, but would be allowable if rewritten to correct the objections mentioned in the paragraphs above.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sogard et al. (US Pat. No. 5,870,197) discloses shielding the beam path of an interferometer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Rutledge whose telephone number is (571) 272-2127. The examiner can normally be reached on Mon - Thurs, 6:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



D. Rutledge
Primary Examiner
Art Unit 2851

dr
10/01/2006